

REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed July 13, 2004 (Paper No. 4). Upon entry of this response, claims 1, and 3-20 are pending in the application. In this response, claims 1, 4-5, and 19 have been amended, and claim 2 has been cancelled. Applicant respectfully requests that the amendments being filed herewith be entered and request that there be reconsideration of all pending claims.

1. Allowable Subject Matter

Applicant appreciates the Examiner's allowance of claims 13-20, and acknowledges the Examiner's indication in the Office Action that claims 5-8 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. Accordingly, Applicant has amended claim 5 to include the limitations of its base claim 1, such that claim 5 is now an independent claim. Dependent claims 6-8, which depend from now independent claim 5, are allowable as a matter of law for at least the reason that the dependent claims 6-8 contain all features of independent claim 5. See, *e.g.*, *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). Accordingly, the Examiner is respectfully requested to place claims 5-8 in condition for allowance.

Applicant wishes to clarify that the amendment to claim 5 is made for purposes of presenting the claim in an independent claim format as requested by the Examiner, and not in response to any rejections made based on cited art. Because a dependent claim as a matter of law inherently contains all of the limitations of its respective parent independent claim, and any intervening claims, the amendment does not narrow the scope of claim 5 as originally filed.

2. Rejection of Claims 1, 2, and 9 under 35 U.S.C. §102

Claims 1, 2, and 9 have been rejected under §102(b) as allegedly anticipated by *Purdy* (U.S. 959,804). Applicant respectfully submits that these rejections have been overcome by the claim amendments made herein, or have been rendered moot by claim cancellation. A proper rejection of a claim under 35 U.S.C. §102 requires that a single prior art reference disclose each element of the claim. *See, e.g., W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983).

a. Claim 1

Applicant respectfully submits that *Purdy* (U.S. 959,804) fails to teach, disclose or suggest at least the feature of “in the first position the collar substantially blocks the flow of atmospheric air from reaching the flame-bearing end of the wick while allowing atmospheric air to reach the flame-bearing end of the wick through the perforations” as recited in amended claim 1.

Purdy (U.S. 959,804) discloses a telescoping tube 9, which can be rotated “so that when a full half turn is made said tube will stand with its upper end raised above that of the [wick] tube 6.” (Lines 70-75). Tube 9 has openings or perforations 14 which are positioned so that when the tube is so rotated, “the openings 4 will be exposed so as to be in communication with the space 13.” (Lines 95-100). Furthermore, “liquid poured into the upper end of the tube 9 upon the upper end of the wick when the tube 9 is so raised will flow laterally through said openings into the annular space 13, and thence into the font.” (Lines 100-110).

As is clear from FIGS. 1-7, openings 14 and annular space 13 are enclosed and surrounded by conduit tube 11. Thus, while openings 14 allow fuel poured through funnel 15 to exit tube 9 and flow into annular space 13, openings 14 are not in contact with atmospheric or

outside air. In contrast, amended claim 1 recites “a collar...having...a central portion, the central portion having one or more perforations...so that in the first position the collar...allowing atmospheric air to reach the flame-bearing end of the wick through the perforations.”

For at least the reason that *Purdy* (U.S. 959,804) fails to disclose, teach or suggest “in the first position the collar substantially blocks the flow of atmospheric air from reaching the flame-bearing end of the wick while allowing atmospheric air to reach the flame-bearing end of the wick through the perforations,” Applicant respectfully submits that amended claim 1 overcomes the rejection. Therefore, Applicant requests that the Examiner’s rejection of amended claim 1 be withdrawn.

b. Claim 2

Claim 2 is cancelled without prejudice, waiver, or disclaimer, and the rejection of this claim is therefore rendered moot. Applicant takes this action merely to reduce the number of disputed issues and to facilitate early allowance and issuance of other claims in the present application. Applicant reserves the right to pursue the subject matter of this cancelled claim in a continuing application, if Applicant so chooses, and does not intend to dedicate any of the cancelled subject matter to the public.

c. Claim 9

Since claim 1 is allowable, Applicant respectfully submits that claim 9 is allowable for at least the reason that it depends from an allowable claim. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir. 1988). Therefore, Applicant respectfully requests that the rejection of claim 9 be withdrawn.

3. Rejection of Claims 1, 3, 4, 10, and 12 under 35 U.S.C. §102

Claims 1, 3, 4, 10, and 12 have been rejected under §102(b) as allegedly anticipated by *Mangin* (U.S. 1,037,948). Applicant respectfully submits that these rejections have been overcome by the claim amendments made herein. A proper rejection of a claim under 35 U.S.C. §102 requires that a single prior art reference disclose each element of the claim. *See, e.g., W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983).

a. Claim 1

Applicant respectfully submits that *Mangin* (U.S. 1,037,948) fails to teach, disclose or suggest at least a “collar surrounding the wick, the collar having ...a central portion, the central portion having one or more perforations,” as recited in amended claim 1. For at least this reason, Applicant respectfully submits that amended claim 1 overcomes the rejection. Therefore, Applicant requests that the Examiner’s rejection of amended claim 1 be withdrawn.

b. Claim 4

Applicant respectfully submits that *Mangin* (U.S. 1,037,948) fails to teach, disclose or suggest at least the feature “wherein the fuel-supplying end of the wick does not extend past the sleeve” as recited in amended claim 4. *Mangin* (U.S. 1,037,948) states that “wick 12 is arranged within the tube 11 and having its inner end extending beyond the end of the tube so as to absorb the illuminating material from the body member.” (Lines 60-65). This arrangement is clearly visible in FIG. 2 of *Mangin* (U.S. 1,037,948).

In contrast, in Applicant’s invention, the fuel-supplying end of the wick does not extend past the sleeve, a feature that allows the flame to be extinguished by adjusting cap 102. As explained in the Specification, “the wick is supplied only by the fuel inside sleeve 105.” (p. 4, Paragraph 24). As further described in the Specification:

Wick 104 does not extend past sleeve 105, so that the *wick is supplied only by the fuel inside sleeve 105*.

The fuel flows generally as follows: surface tension of the liquid fuel draws fuel up through the fibers of the wick 104 by capillary action. When the wick 104 burns fuel at its flame bearing end 306, an equal amount is drawn up the wick 104 from fuel reservoir 101 to replenish the burned fuel. In normal operation, cap 102 is either absent or not tightly closed. Air flows from the atmosphere into fuel reservoir 101 to fill the void left by the burned fuel, so that the pressure outside the sleeve 105 and inside the sleeve 105 is the same. *As long as the fuel level inside fuel reservoir is at or above the fuel-supplying end 307 of the wick 104, fuel is available to be drawn the wick 104.*

In another mode of operation, cap is tightly closed so that air is unable to flow into fuel reservoir 101 to fill the void left by the burned fuel. In this mode, pressure outside the sleeve is not the same as pressure inside the sleeve 105, since air channel 301 supplies air inside the sleeve 105 but cap prevents air from flowing into the portion of the fuel reservoir 101 outside the sleeve 105. Because of this difference in pressure, fuel will no longer flow from the portion outside the sleeve 105 to the portion inside the sleeve 105 containing the fuel-supplying end 307 of the wick 104. *When the fuel already present at the fuel-supplying end 307 of the wick 104 is consumed, the wick 104 will no longer be in contact with the fuel inside the sleeve 105. Since fuel is no longer available to the wick 104, the flame will diminish in size as the fuel in the wick 104 burns, and then the flame will finally be extinguished.* (p. 4, paragraph 24 through p. 5, paragraph 26).

For at least the reason that *Mangin* (U.S. 1,037,948) fails to disclose, teach or suggest “in the first position the collar substantially blocks the flow of atmospheric air from reaching the flame-bearing end of the wick while allowing atmospheric air to reach the flame-bearing end of the wick through the perforations,” Applicant respectfully submits that amended claim 4 overcomes the rejection. Therefore, Applicant requests that the Examiner’s rejection of amended claim 4 be withdrawn.

c. Claims 3, 10, and 12

Since claim 1 is allowable, Applicant respectfully submits that claims 3, 10, and 12 are allowable for at least the reason that each depends from an allowable claim. *In re Fine*,

837 F.2d 1071, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir. 1988). Therefore, Applicant respectfully requests that the rejection of claims 3, 10, and 12 be withdrawn.

4. Rejection of Claim 11 under 35 U.S.C. § 103

Claim 11 has been rejected under §103(a) as allegedly obvious over *Purdy* (U.S. 959,804) or *Mangin*. (U.S. 1,037,948). Applicant respectfully traverses this rejection. Since claim 1 is allowable, Applicant respectfully submits that claim 11 is allowable for at least the reason that it depends from an allowable claim. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir. 1988). Therefore, Applicant respectfully requests that the rejection of claim 11 be withdrawn.

CONCLUSION

Applicant respectfully requests that all outstanding objections and rejections be withdrawn and that this application and presently pending claims 1, and 3-20 be allowed to issue. If the Examiner has any questions or comments regarding Applicant's response, the Examiner is encouraged to telephone Applicant's undersigned counsel.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that the below listed items are being deposited with the U.S. Postal Service as first class mail in an envelope addressed to:

**Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
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on August 3, 2004.

Belinda K. Weiss
Belinda K. Weiss

In Re Application of:

Susumu Matsuyama

Serial No.: 10/646,172

Filed: August 22, 2003

Confirmation No.: 9104

Group Art Unit: 3749

Examiner: Alfred Basichas

Docket No.: 271303-1011

For: **Apparatus for Controlling Characteristics of a Flame**

The following is a list of documents enclosed:

Return Postcard
Amendment Transmittal Letter (Small)
First Response (with Amendments)

Further, the Commissioner is authorized to charge Deposit Account No. 20-0778 for any additional fees required. The Commissioner is requested to credit any excess fee paid to Deposit Account No. 20-0778.